

## SABIC Innovative Plastics Xenoy<sup>®</sup> IQ1103R PBT+PC

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate/Polybutylene Terephthalate (PBT) Blend, Unreinforced , Polyester, TP , Polybutylene Terephthalate (PBT)

### Material Notes:

Xenoy<sup>®</sup> Resin iQ1103R - Environmentally responsible, sustainable, and low carbon footprint resin. Xenoy iQ1103R is an unreinforced, impact modified PC + iQ-PBT alloy with excellent low temperature impact, chemical resistance, and a special mold release. Range gray, black colors, limited colors. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Xenoy-IQ1103R-PBTPC.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Xenoy-IQ1103R-PBTPC.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.19 g/cc	1.19 g/cc	ASTM D 792
Density	1.20 g/cc	0.0434 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.080 %	0.080 %	23 <sup>°</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	0.30 % @Temperature 23.0 <sup>°</sup> C	0.30 % @Temperature 73.4 <sup>°</sup> F	ISO 62
Linear Mold Shrinkage, Flow	0.0080 - 0.012 cm/cm @Thickness 3.20 mm	0.0080 - 0.012 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	12 g/10 min @Load 5.00 kg, Temperature 250 <sup>°</sup> C	12 g/10 min @Load 11.0 lb, Temperature 482 <sup>°</sup> F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133
	13 g/10 min @Load 5.00 kg, Temperature 250 <sup>°</sup> C	13 g/10 min @Load 11.0 lb, Temperature 482 <sup>°</sup> F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	46.0 MPa	6670 psi	Type I, 50 mm/min; ASTM D 638
	47.0 MPa	6820 psi	50 mm/min; ISO 527
Tensile Strength, Yield	45.0 MPa	6530 psi	Type I, 50 mm/min; ASTM D 638
	49.0 MPa	7110 psi	50 mm/min; ISO 527
Elongation at Break	140 %	140 %	Type I, 50 mm/min; ASTM D 638
	150 %	150 %	50 mm/min; ISO 527
Elongation at Yield	4.0 %	4.0 %	Type I, 50 mm/min; ASTM D 638

Mechanical Properties	Metric	English	Comments
Tensile Modulus	1.95 GPa	283 ksi	1 mm/min; ISO 527
	2.05 GPa	297 ksi	50 mm/min; ASTM D 638
Flexural Yield Strength	70.0 MPa	10200 psi	2 mm/min; ISO 178
	74.0 MPa	10700 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	1.92 GPa	278 ksi	2 mm/min; ISO 178
	2.00 GPa	290 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	6.00 J/cm	11.2 ft-lb/in	ASTM D 256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	6.50 J/cm	12.2 ft-lb/in	ASTM D 256
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Notched (ISO)	47.0 kJ/m <sup>2</sup>	22.4 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	55.0 kJ/m <sup>2</sup>	26.2 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	5.50 J/cm <sup>2</sup>	26.2 ft-lb/in <sup>2</sup>	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Impact Test	50.0 J	36.9 ft-lb	Instrumented Impact Total Energy; ASTM D 3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	90.0 μm/m-°C	50.0 μin/in-°F	ASTM E 831
	@Temperature -40.0 - 150 °C	@Temperature -40.0 - 302 °F	
	90.0 μm/m-°C	50.0 μin/in-°F	ISO 11359-2
	@Temperature -30.0 - 80.0 °C	@Temperature -22.0 - 176 °F	
CTE, linear, Transverse to Flow	95.0 μm/m-°C	52.8 μin/in-°F	ASTM E 831

Thermal Properties	Metric @Temperature -40.0 - 150 Â°C	English @Temperature -40.0 - 500 Â°F	Comments
	95.0 Âµm/m-Â°C	52.8 Âµin/in-Â°F	ISO 11359-2
	@Temperature -30.0 - 80.0 Â°C	@Temperature -22.0 - 176 Â°F	
Deflection Temperature at 0.46 MPa (66 psi)	99.0 Â°C	210 Â°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Deflection Temperature at 1.8 MPa (264 psi)	76.0 Â°C	169 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	75.0 Â°C	167 Â°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	115 Â°C	239 Â°F	Rate B/50; ISO 306
	117 Â°C	243 Â°F	Rate B/120; ISO 306
	117 Â°C	243 Â°F	Rate B/50; ASTM D 1525

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